

SNEW

South Norwalk Electric and Water
A Municipal Utility System
Serving the Needs of the Community

JOHN M. HISCOCK, P.E., General Manager

KEVIN BARBER, Director Admin & Customer Service
THOMAS F. VILLA P.E., Director of Operations
SCOTT WHITTIER, Director of Technical Services

May 10, 2013



Ms. Melanie Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: Docket No. 431- South Norwalk Electric and Water – Development and Management Plan Phase I of the Proposed Substation; 180-184 Dr. Martin Luther King Junior Drive

Dear Ms. Bachman:

Enclosed please find the South Norwalk Electric and Water Development and Management Plan Phase I of the proposed substation at 180-184 Dr. Martin Luther King Junior Drive in accordance with the Siting Council's approval in Docket Number 431.

The enclosed Development and Management Plan Phase I is for the removal of trees from the project area and a soil remediation plan for the southern property within the project area.

South Norwalk Electric and Water is currently preparing a Development and Management Plan to encompass the rest of the project and will be submitting that within the next several weeks.

Regards,

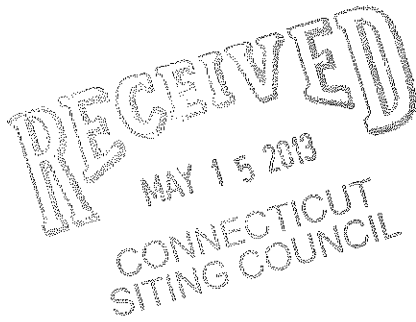


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Development and Management Plan
(Vegetation Removal and Soil Remediation--- Phase 1)
For
SONO Substation
Norwalk, Connecticut

The South Norwalk Electric and Water hereby submits a Development and Management ("D&M") Plan, of the tree removal and soil remediation phase, for the SONO Substation to the Connecticut Siting Council ("Council"). A subsequent full D&M plan shall be submitted during the tree removal and soil remediation.

The Development and Management Plan consists of the following:

- I. Introduction
- II. General Project Description
- III. Development and Management Plan Narrative
- IV. Appendix
 - Appendix A: Figure 1: Site Location Map, USGS
 - Appendix B: Aerial- Tree Removal: 180-184 Dr Martin Luther King Jr. Dr.
 - Appendix C: Professional Forester Classification of Existing Vegetation
 - Appendix D: Remedial Action Plan

Section I
Introduction

This D&M plan is only for the tree removal and soil remediation for the SONO Substation to comply with a condition in the Council's Decision and Order in Docket No. 431, dated March 21, 2013. A subsequent D&M plan will be submitted to comply with the remaining conditions as outlined in the Council's Decision and Order.

Section II

General Project Description

The Applicant, The Second Taxing District of the City of Norwalk, Fairfield County, Connecticut, South Norwalk Electric and Water (SNEW), is proposing to construct a 115-kilovolt ("kV") to 13.8-kV bulk supply substation that would be directly connected to an existing CL&P 115 kV transmission Line. The substation is proposed on an approximately 1.07 acre site owned by SNEW. The Site includes two adjoining parcels located adjacent to and west of Dr. Martin Luther King, Jr. Drive in the southwestern portion of Norwalk's Second Taxing District.

This location is zoned for industrial purposes. The site is a triangular shaped and abuts the Metro-North/Amtrak rail corridor and existing CL&P electric transmission easement to the west, Dr. Martin Luther King Junior Drive to the east and a delivery distribution facility to the south (United Parcel Service- UPS). The site does not have any watercourses, known critical habitats or sites identified as having rare or endangered plant or animal species listed by federal and state government agencies, or any underground facilities or utilities.

The proposed Project will involve the construction and operation of the substation, as well as the establishment of a new interconnection to CL&P's adjacent 115 kV transmission line, and the addition of three steel pole structures in the Metro-North corridor.

The overall purpose of the Project is to add capacity in response to the increasing demand for electricity in South Norwalk and its surrounding area and by so doing, improving electric distribution system reliability in the City of Norwalk.

Section III
Development and Management Plan Narrative
(Tree Removal and Site Remediation)

The intent of this D&M Plan (Phase I) is to describe the removal of the trees from the site and remediate the soil on the southern parcel.

Key Map

A key map can be found in Section IV, *Figure 1, Site Location Map, USGS*

Tree Removal

Tree clearing is necessary to accommodate the substation footprint. Currently there are trees along the western property line, next to the Metro-North/Amtrak rail corridor which need to be removed. The trees will be cut and the stumps and associated vegetation will be left in place. Grubbing will not occur during this phase as a soil and erosion control measure. SNEW estimates that approximately forty five (45) trees ranging from two inches (2") to fourteen inches (14"), measured at diameter at breast height (DBH), are within the area to be removed. The trees will not be salvaged as marketable timber because of the size and shape of the trees. All wood debris will be removed off the site except the stumps. The stumps will be removed during the grading of the site. A grading plan will be in a subsequent D&M plan submission. Attached, as Appendix C, is a professional Forester classification of the vegetation to be removed. An aerial outlining the extent of the clearing can be found in Section IV, *Tree Removal: 180-184 Dr Martin Luther King Jr. Dr.*

Site Remediation

The southern parcel of this site was previously improved with a two-story residential building and a small single story garage. Both structures were demolished in 2010. The garage was used as an auto body shop and operated as an automotive repair shop from 1950's to 1960's and an auto body shop from 1960's to 1995. The body shop listed as Wrinn's Auto Body was listed as a RCRA-Small Quantity Generator (SQG). Based on the past operation as an auto-body shop, the property was qualified as an "establishment" under the provisions of the Property Transfer Act, pursuant to the Connecticut General Statutes 22a-134.

SNEW contracted with Hygenix Inc, a local Licensed Environmental Professional, to conduct a phase one and two Environmental Site Assessment. This assessment revealed several contaminants which exceeded the applicable soil criteria. Consequently, Hygenix prepared a Remedial Action Plan (Section IV, *Remedial Action Plan*) which SNEW will follow.

Section IV

Appendix

Appendix A: Figure 1, Site Location Map, USGS

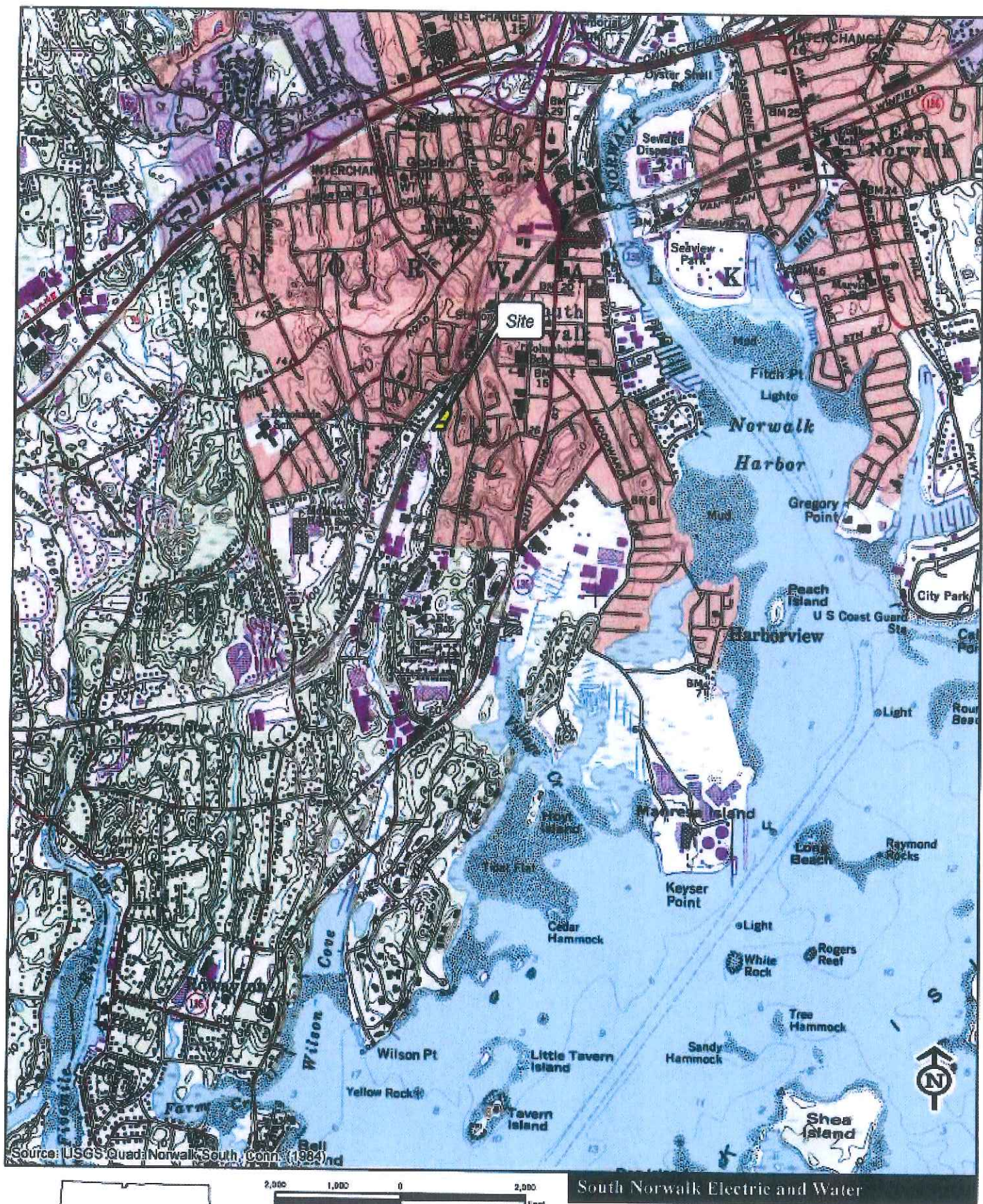


Figure 1
Site Location Map
180-184 Dr. Martin Luther King Jr. Drive
Norwalk, Connecticut

Appendix B: Tree Removal: 180-184 Dr Martin Luther King Jr. Dr.

Tree Removal: 180-184 Dr. Martin Luther King Jr. Dr



Date: 5/3/2013

Tree Removal - Site Prep

0 37.5 75 150
Feet

1:1,000

Appendix C: Professional Forester Classification of Existing Vegetation



South Norwalk Electric and Water
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Vegetation Assessment for Martin Luther King Substation Project.

On-site vegetation is confined to a narrow strip of sloping land running along the western side of the project area (see aerial map). The vegetation occupies an area between developed portions of industrial properties and the Metro North Railroad right-of-way (ROW). The land adjoining the vegetated strip is mostly level, vacant, industrial storage sites or parking areas to the east and the aforementioned commuter, railway corridor to the west.

Vegetation consists of a limited variety of early successional, fast growing woody and brushy perennials and herbaceous plants common to urban environments. As a common trait among them, the trees, shrubs, vines and herbs are fast-growing and well- adapted to colonizing and occupying severely disturbed areas that subject to periodic and severe ROW maintenance practices and procedures (e.g. pruning, brushing out, etc.). Except for a few exceptions as noted in the closing paragraph, the on-site flora is limited to introduced, non-native and/or invasive plant species.

Topographically, the vegetated slopes range from severe to moderate with intermittent terraced areas interspersed mid-slope or at the edges along the length of the site. The embankment varies in width from north to south. The northern half ranges from 60 feet to a maximum of 75 feet at the northern end. The southern half consistently averages between 25-40 feet across. The growing substrate varies from location to location, and is a mixture of disturbed soils and fill. From surface observations this material is comprised of construction debris, slag, and unconsolidated, granitic, rock fragments of the kind typically associated with railroad beds. In general, this growing substrate appears poor and low in fertility, but more favorable at the north end of the site compared to the south.

There is a notably height difference in the trees in the northern end compared to the southern half. The tallest trees at the north end are approximately 40-50 feet in height while at the southern end, they reach only 20-30 feet, with most trees having even a lower stature. In a couple of locations, particularly in the middle of the project area and at the extreme southern end, vegetation is non-existent or limited to scattered shrubs and herbaceous material. As evidenced by their condition, trees and large shrubs show the effects of pruning and other vegetation management operations. Additionally many show the effects of recent storm damage made more severe from their exposed, growing position. Many taller trees have damaged crowns and wounds, such as branch stubs and cavities. Most canopy trees are overgrown with vines and brambles. Shade, tolerant understory trees and shrubs are growing vigorously in most areas in response to the availability of sunlight at ground level.

Where vegetation is present, species composition is uniform excepted where noted below. The vegetation consists of an open overstory of taller trees and an overgrown sub-canopy and understory consisting of brambles, vines and the occasional sub-canopy tree with an intermittent but dense shrub

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layer and an equally dense ground cover of vines, herbs, and weeds. The dominant canopy tree is the black locust while individual specimens or collections of box elder, Norway maple, and tree-of-heaven are common throughout the survey area. Tree-of-heaven is the most common tree in portions of some areas particularly in the southern end of the project area. Sub-canopy trees include aforementioned species as well as introduced crabapple (*Malus* spp.). The dominant shrubs are multi-flora rose and Japanese knotweed. Other brambles include *Rubus* spp., which are widespread. Other shrubs include buckthorn and burning bush, both of which are uncommon. Other common vines include English ivy and climbing euonymus. The most common herb is garlic mustard. Other local common herbs include dandelion, red clover, bedstraw, and purple deadnettle.

There are four, native trees and one, native, vine species present (i.e. poison ivy). Except of poison ivy, native species are limited in representation and distribution across the project area. Most of the native trees are small, pole-sized trees or smaller. There is one red cedar and gray dogwood growing in the southern end of the project area. There are several black cherries growing at the northern end of the project area. There are several black oaks growing at the northern end of southern half of the project area. The oaks range in size from seedlings to small, pole-sized trees. Poison ivy is locally common in several locations across the project area.

Submitted by H. Casey Cordes

Certified Forester (F000196)

Certified Arborist (S-4640)

Appendix D: Remedial Action Plan

REMEDIAL ACTION PLAN

INSPECTION SITE: South Norwalk Electric & Water Company (SNEW)
South Parcel Substation
180-184 Dr. Martin Luther King Jr. Drive
Norwalk, CT

CLIENT: South Norwalk Electric & Water Company (SNEW)
Attn: Scott Whittier
1 State Street
Norwalk, CT 06852

PREPARED BY: Arthur Morris, MS, LEP and Lloyd Jones BS, MS

DATE: April 1, 2013

BACKGROUND

HYGENIX, Inc. was contracted by Scott Whittier of the South Norwalk Electric and Water Company (SNEW) to prepare a remedial action plan. The purpose of this plan is to develop a course of action for remediating contaminants present on the site in order to bring the site into compliance with the State Remediation Standard Regulations, 22a-133k-1 through 3. The process calls for evaluating various options for attaining compliance and selecting the option that best fits the needs of the client and future development of the site.

The basis for the development of this plan was an earlier Phase I Environmental Site Assessment and several subsurface investigations of the property conducted by HYGENIX, Inc. Based on information from the subsurface investigations, there is fill material across the westerly portion of the site extending to the property lines at various locations. Most of the fill material consists of soil mixed with coal and ash, slag, and trace pieces of metal, brick, concrete and glass. The contaminants of concern (COC) in the fill material are Total and SPLP Lead, Total Arsenic, and to a lesser degree, a small area with Petroleum Hydrocarbons and trace Volatile Organic Compounds located in the southwest corner of the property. The Petroleum Hydrocarbons and Volatile Organic Compounds were introduced after placement of the fill materials. Generally, the levels present are slightly above regulatory soil criteria. No PCBs are present in the fill material. The impacted materials will require special handling and disposal but are not classified as hazardous.

The subject property consists of an approximately 0.429-acre site. The site is located on the westerly side of Dr. Martin Luther King Jr. Drive near the intersection with Lowe Street in the South Norwalk District of Norwalk, CT. There are no structures on the site. The overall gradient of the site is to the southwest. The groundwater classification is GA based upon the State of Connecticut, Department of Energy and Environmental Protection Water

(continued)

Quality Criteria. The site is located in a commercial/industrial area, and the property is zoned R-1 Restricted Industrial. Public water and a municipal sewer system service the site and the surrounding area.

Because the site is located within an area with GA groundwater classification, the applicable regulatory criteria for soils on the site are:

- Pollutant Mobility Criteria for GA Classified Areas (GA-PMC)
- Residential Direct Exposure Criteria (RDEC)
- Industrial/Commercial Direct Exposure Criteria (I/C DEC)

Because the site is located within an area with GA groundwater classification, the applicable regulatory criteria for groundwater on the site are:

- Groundwater Protection Criteria (GWPC)
- Residential Volatilization Criteria (RES Vol.)
- Industrial/Commercial Volatilization Criteria (I/C Vol.)
- Surface Water Protection Criteria (SWPC)

SITE HISTORY

The site was previously improved with a two-story residential building built in or about 1920 and a small single story garage built in or about 1940. The garage was used as an auto body shop located on the southwest corner of the property. The garage operated as DiBart's Garage, an automotive repair shop from the 1950's to the 1960's. From the 1960's to 1995 it operated as Wrinn's Auto Body, an auto body shop. From 1996 to 1999, Nados Paving used the garage to store paving machines and personal property. The former automotive repair work performed at the garage was mostly small scale and did not include full restoration.

However, Wrinn's Auto Body was listed as a RCRA-Small Quantity Generator (SQG). There are records of hazardous waste material generated for the auto body shop. Based upon its past operations as an auto-body shop, the subject property would qualify as an "establishment" under the provisions of the Property Transfer Act, pursuant to the Connecticut General Statutes 22a-134. Therefore the property is subject to filing requirements upon transfer of ownership of the property.

SITE INVESTIGATIONS AND PROPERTY TRANSFER FILING

A Phase I Environmental Site Assessment (ESA) of the site was conducted during July 2009 and identified the following areas of concern (AOC) where further evaluation was necessary:

- | | |
|-------|---|
| AOC-1 | Abandoned Above Ground Storage Tank |
| AOC-2 | Service Bays in Western Section of Garage |

(continued)

AOC-3	Eastern Section of Garage with Floor Drain
AOC-4	Location of Former 550 Gallon Underground Heating Oil Tank
AOC-5	Fill Material

To characterize the site, a total of thirty-four (34) soil borings were installed to determine the extent of the contaminated fill material on the site. The soil borings extended from the surface to 8 feet below grade (8 FBG) and at some locations to ± 12 FBG. In general, the fill material extended to a depth of ± 9 FBG. Overall, the fill material begins at shallow depths on the east side of the property (soil borings B-9, B-11, B-12, B-14 and HYG-2) and extends deeper to the west side of the property. The thickest layer of fill material is concentrated on the west to mid-west side of the property at locations B-3, B-5, B-6, B-7, B-8, HYG-1, HYG-4, HYG-6, HYG-9 and HYG-12. Representative soil samples were collected from the soil borings installed during our investigation and analyzed for total and SPLP analysis for metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), petroleum hydrocarbons (ETPH) and polychlorinated biphenyl (PCBs).

None of the soil boring samples exhibited any evidence of contamination except for the following: Total and SPLP lead are present in the soils at levels above Residential Direct Exposure Criteria (RDEC) and the GA Pollutant Mobility Criteria (GA-PMC) due to the presence of slag in the fill material. Levels of Extractable Total Petroleum Hydrocarbons (ETPH) were also present, but only below the former garage area at depths from 8 to 12 FBG. The ETPH levels are above the RDEC. Similarly, benzene, sec-butylbenzene and tetrachloroethylene are present below the slab flooring (0.5 to 2 FBG) of the former garage at levels slightly above the GA-PMC. The expected amount of fill material requiring disposal is approximately 3,500 tons. The expected amount of petroleum affected soils below the former garage slab is approximately 400 tons.

In addition to the investigation of the soils on the property, several groundwater monitoring wells were installed on the property and analyzed for contaminants of concern including: RCRA (8) metals, CT Extractable Petroleum Hydrocarbons, and volatile organic compounds. With the exception of trace levels of volatile compounds (Chloroform and Tetrachloroethylene), only total chromium (5.4 ug/l) and lead (33 ug/l) were present above applicable groundwater criteria. The presence of the two metals was detected in a topographically up gradient monitoring well indicating the contaminants originate from beyond the subject property. On this basis, no groundwater remediation will be required on the site. The groundwater flows in a southeasterly direction across the site.

To assure field sampling and laboratory analyses met quality control objectives, the subsurface investigation included data quality objectives and data validation. This approach requires field sampling quality control measures and requirements placed on the laboratory performing the analysis including adherence with CT DEEP Reasonable Confidence Protocols. In brief, the sampling and laboratory data met the quality assurance objectives.

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Lastly, as part of our initial assessment there are no sensitive receptors and no known ecological risk factors associated with the site.

Attached is a cross sectional diagram that illustrates the thickness of the fill material on the site (Figure 1). Also included is a site diagram that shows the extent and depth of the fill material (Figure 2) and locations of the sampling points on the site (Figure 3). Summary Tables indicating the levels of contaminants present in the soil and fill material are also attached (Tables 1 and 2). This information will assist the Contractor in the selection of a disposal facility.

Upon transfer of ownership of the property in 2009 a Form III and Environmental Condition assessment Form (ECAF) along with copies of earlier investigations were submitted to the CT DEEP. The site has been delegated to a Licensed Environmental Professional (LEP) to oversee the investigation of the parcel and verify that the site will be remediated in accordance with the State Remediation Standard Regulations (RSRs). The property has been vacant since 2009. The residential and garage structures on the property were razed in 2010.

Conceptual Site Model (CSM):

There are two principal sources for the contamination on the site. The primary source of contamination is the fill material across the westerly portion of the property. The contaminants of concern in the fill material are metals, particularly arsenic and lead. The second source of contamination is the former automotive repair shop that was responsible for introducing petroleum hydrocarbons and low levels of VOCs below the garage slab on the southwest corner of site.

Based on the location of the fill material in low lying sections of the property and below some of the structures, it is likely the fill material was introduced sometime prior to development of the site. The presence of metals, particularly arsenic and lead, can be attributed to contaminants present in the fill. The introduction of the low level petroleum and volatile organic contaminants can be attributed to the former automotive repair operations inside the former garage. The easterly section of the garage was used for storage. The westerly section was where major mechanical work was performed and where painting operations took place.

During the investigation, potential sources of contamination were identified and evaluated including, but not limited to: the floor drainage system, a slop sink, an underground tank, an above ground storage tank, waste storage areas, and surface staining. Numerous groundwater wells were installed down gradient of areas of concern to evaluate impact on the groundwater. The only groundwater contaminants detected above regulatory criteria were lead and chromium.

However, the presence of these two metals was detected from an up gradient well, making it unlikely they originate from the site. There was no evidence of any impact to the groundwater from former operations on the site that would require remedial action.

Public Notification

Prior to initiation of any remedial work, there must be public notice of remediation in accordance with Connecticut General statutes 22a-134a(j). The notice should be placed 45 days prior to any remedial work, and allow adequate time for any comments on the proposed remediation and any response to such comments to be incorporated into the Remedial Action Plan. A copy of the legal notice will be forwarded to the CT DEEP and local Director of Health.

Options for Site Remediation

On the basis of our site characterization and CSM, HYGENIX has evaluated various options for bringing the site into compliance with the RSRs.

Option I

Excavate the soils and fill material on the property that exceeds the Residential Direct Exposure Criteria (RDEC) and GA-Pollutant Mobility Criteria (PMC). This approach includes the removal of all of the contaminated fill material on the property. This will require replacement clean fill for almost the entire west side of the property.

Option II

Remove soils containing metals that exceed the applicable DEC within four feet of grade, and replace with four feet of clean fill material. The areas where four feet of fill material was encountered were at B-2, B-3, B-5, B-6, B-7, B-8, B-9, B-11, B-12, HYG-1, HYG-4, HYG-6, HYG-7, HYG-9 and HYG-12. Further, any soils above the GA-Pollutant Mobility Criteria (PMC) and/or less than GA Groundwater Protection Criteria (GWPC) x 10, where applicable, will require excavation and off-site disposal. Soils above the GA PMC have been identified at the following locations: B-1 (4'-4.8'), B-2 (7.5'-8'), B-5 (7'-8'), B-9 (2'-2.5'), B-12 (3.5'-4'), B-14 (3'-4'), HYG-2 (0'-2'), HYG-6 (2'-4'), HYG-7 (4'-6') and HYG-7 (6'-7'). This option will require an Environmental Land Use Deed Restriction.

Option III

Remove soils containing metals that exceed the applicable DEC within two feet of grade and replace with two feet of clean fill material and place three inches of paved asphalt above the fill material. The areas where two feet of fill material was encountered were at B-3, B-5, B-6, B-7, B-8, B-9, B-11, B-12, HYG-1, HYG-4, HYG-6, HYG-9 and HYG-12. Also, any soils above the GA-Pollutant Mobility Criteria (PMC) and/or less than GA Groundwater Protection Criteria (GWPC) x 10,

where applicable, will require excavation and off-site disposal. Soils above the GA PMC have been identified at the following locations: B-1 (4'-4.8'), B-2 (7.5'-8'), B-5 (7'-8'), B-9 (2'-2.5'), B-12 (3.5'-4'), B-14 (3'-4'), HYG-2 (0-2'), HYG-6 (2'-4'), HYG-7 (4'-6') and HYG-7 (6'-7'). This option will require an Environmental Land Use Deed Restriction.

Option IV

Request a variance from the Commissioner for wide spread polluted fill. To obtain this variance, one must demonstrate extensive polluted fill is present at other parcels in the vicinity of the subject parcel. This is often difficult to prove and requires further investigative action.

Options II and III require the removal of soils above the GA PMC and above the seasonal low water table. They also require a Land Use Deed Restriction to obtain compliance. Based on the data and the non-homogeneous nature of the fill material, it is impractical to identify all the areas on the subject property with soils above the GA PMC requiring removal to achieve compliance. Therefore, Options II and III were dismissed as viable options.

Option IV requires the evaluation of neighboring sites to determine the extent of the contamination. This makes it a costly option, and it may also be difficult to obtain cooperation from neighboring property owners.

Based on the nature and distribution of the fill material and concerns raised by the property owner as it pertains to site development, Option I has been selected as the preferred remedial approach.

REMEDIAL APPROACH

Upon reviewing various options, the client has selected Option I requiring the removal of all fill material and soils containing contaminants of concern above the Residential Direct Exposure Criteria and GA Pollutant Mobility Criteria in order to achieve compliance with the RSRs. The fill material extends to the western property line in close proximity to the berm of the Metro North railroad tracks requiring special care and attention when excavating along this section. The fill material in this area generally extends to a depth of ± 7 feet below grade. Because achieving compliance along the corridor with the Direct Exposure Criteria and GA PMC present special concerns. The following is proposed for this western corridor along the railroad.

- a) Remove fill material to seasonal low water table of ± 7 feet below grade along this corridor to address the PMC. In the event the RSDEC is not achieved along this corridor, an Environmental Land Use Restriction will be required.
- b) In the event one is unable to achieve compliance with the GA PMC along this corridor, then an engineered control cap will be required to achieve compliance. This generally requires long term monitoring and a compliance bond.

(continued)

The expected amount of fill material requiring disposal is approximately 2,700 to 3,500 tons. The anticipated amount of encountering petroleum affected soils below the former garage slab is approximately 400 tons.

A set of specifications has been developed and will be used in the selection of a qualified contractor. To document compliance with the RSRs, confirmatory soil sampling will be performed in various representative areas of the excavations including base and sidewall samples to document compliance with the RSRs prior to backfilling. The site will be backfilled with clean soils.

COMPLETION OF INVESTIGATION REPORT AND CT DEEP TRANSMITTAL FORM

Concurrent with the preparation of this Remedial Action Plan (RAP), a Completion of Investigation (COI) Report is in the process of being compiled and will incorporate the findings from the various investigations. The COI report and transmittal form will be forwarded to CT DEEP.

POST REMEDIATION AND COMPLIANCE GROUNDWATER MONITORING

Groundwater monitoring wells will be installed down-gradient of each of the areas requiring soil excavation. As required by the RSRs, compliance groundwater monitoring will require at least four consecutive quarterly sampling periods, a minimum of one year after compliance has been achieved with background concentrations or a minimum of three years after compliance with the groundwater protection criteria.

VERIFICATION REPORT BY LICENSED ENVIRONMENTAL PROFESSIONAL

Upon completion of all required soil remediation and demonstration of compliance with groundwater monitoring requirements, a final verification will be submitted by a Licensed Environmental Professional.

(continued)

Preparer and Statement of Qualifications:

Hygenix, Inc. has prepared this Remedial Action Plan for the property located at 180-184 Dr. Martin Luther King Jr. Drive in Norwalk, CT, the property. The investigations undertaken for characterization of the site were the basis for the preparation of this plan. In general, this work was conducted in accordance with guidance documents prepared by the CT DEEP. There are no known exceptions or deletions. Attached is a bibliography indicating the source(s) of information used in the preparation of this document.

This document was prepared by the lead investigator of the site, Lloyd Jones, in collaboration with Arthur Morris, a licensed environmental professional assigned to this project. Both Lloyd Jones and Arthur Morris have years of experience in performing assessments, investigations, and remedial measures of sites with similar site characteristics and contaminants of concern. All work has been reviewed and evaluated for purposes of achieving compliance with requirements of the Property Transfer Act.

Principal Investigator:

Lloyd Jones BS, MS



Senior Evaluator:

Arthur Morris MS, LEP



Date:

April 1, 2013

References/Bibliography (resources)

Phase I Environmental Site Assessment (ESA) performed by Hygenix, Inc., July 2009

Phase II ESA Subsurface Investigation and Soil Gas Survey performed by Hygenix, Inc., August 2009

Supplemental Soil Borings and Remedial Options performed by Hygenix, Inc., September 2009

Additional Soil Borings Investigation performed by Hygenix, Inc., November 2012

ASTM – E 1527-05 Phase I Environmental Site Assessment Standard

State of Connecticut Department of Environmental Protection, Site Characterization Guidance Document September 2007

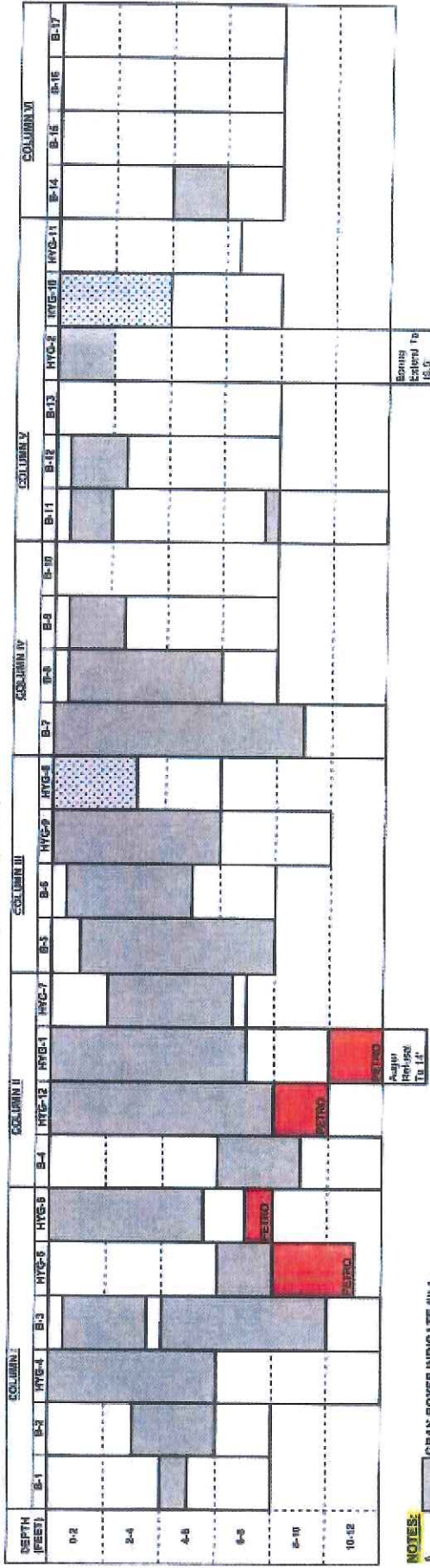
Remediation Standard Regulations, Regulations of Connecticut State Agencies Sections 22a-133k-1 through 22a-133k-3

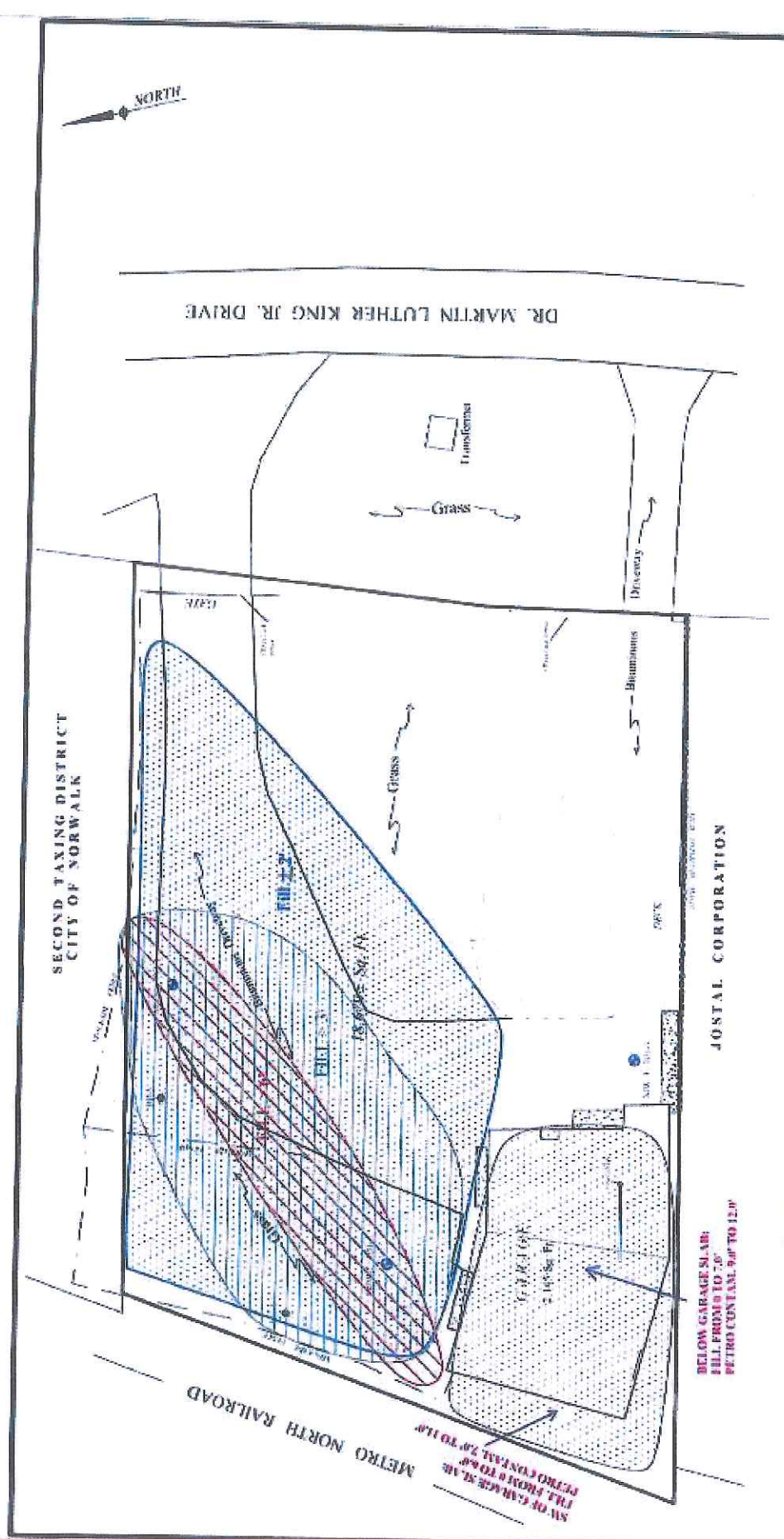
Soil Survey of Fairfield County, CT, US department of Agriculture, February 1981

Bedrock Geology Map of Connecticut, John Rogers-Yale University 1985

Water Quality Classification Map adopted March 30, 1999 CT DEP


FIGURE 1.
SNEW-SUBSTATION
BORING FILL LAYER SORTED BY COLUMNS (NORTH-SOUTH)





Legend

- Fill $\pm 2'$
- Fill approx. $> 3'$
- Fill approx. $> 6'$
- Petroleum impacted & Fill material below garage slab & along property boundary
- * Approximate amount of fill material 2,700 - 3,500 Tons
- * Petroleum affected soils below slab ~ 400 Tons

	HYGENIX, INC.	Figure: 2
	40 Woodside Street, Stamford, CT 06902 Phone: (203) 324-2225 Fax: (203) 324-0857	Date: 1/25/13
		Drawn by: LJ
Title: EXTERIOR SOIL BORINGS & INDICATING THICKNESS OF FILL MATERIAL		
Site:	180-184 Dr. Martin Luther King Jr. Drive Norwalk, CT	
Client:	SNEW	



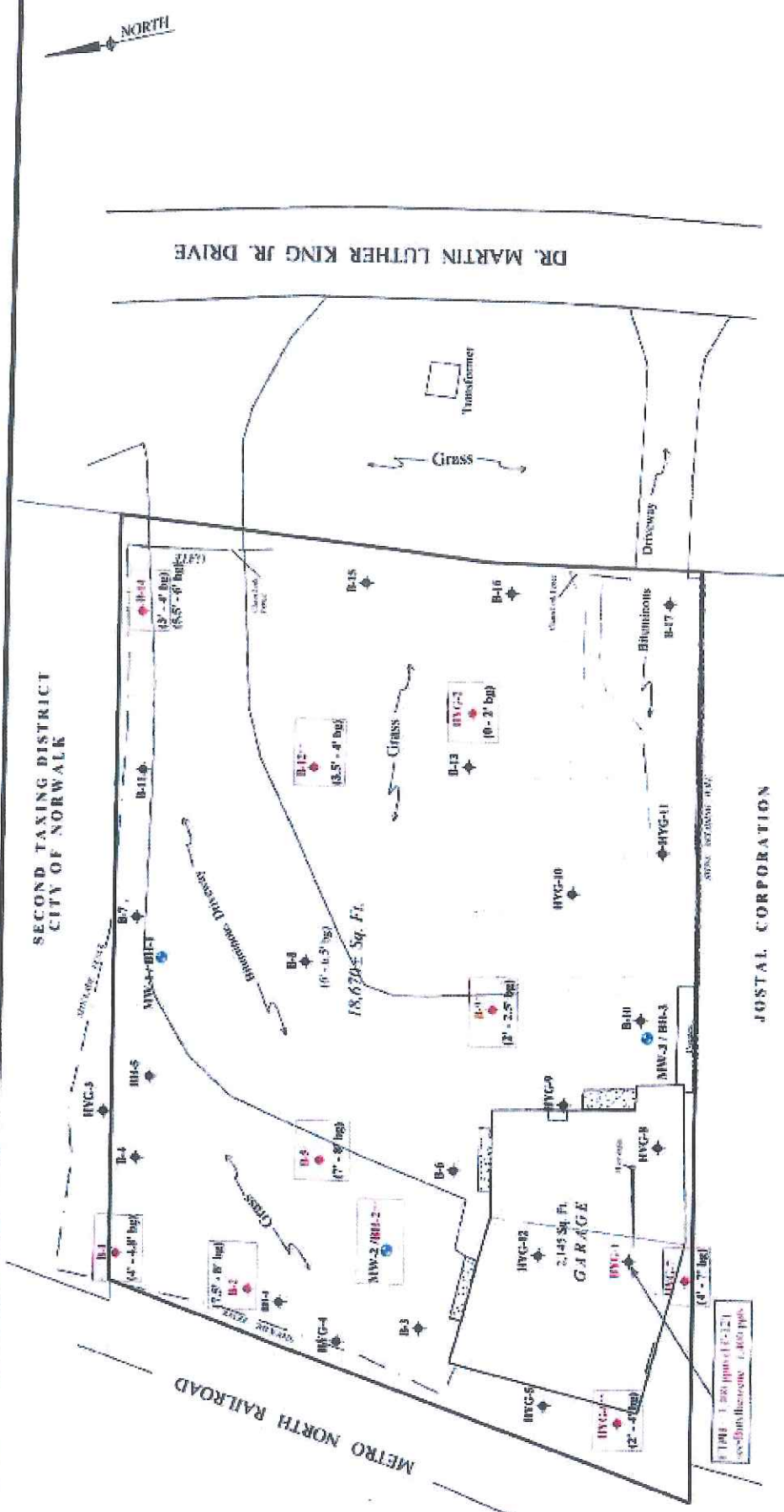
Drawing Source: Property Survey by Reim and Emdin
Land Surveyors, July 30, 2009

SECOND TAXING DISTRICT
CITY OF NORWALK

METRO NORTH RAILROAD

DR. MARTIN LUTHER KING JR. DRIVE

JOSTAL CORPORATION



Legend

- B-3 Soil Borings (8/31/09)
- MW-3 / BH-3 Soil Boring/Monitoring Well (7/30/09)
- MW-5 Soil Borings installed 2012
- B-3 Soil results above PMC
- MW-5 Soil results > 2 x PMC for Pb (0.03 ppm)
- MW-5 Depth of soil sample (3.5' - 4' bg)

HYGENIX, INC. 490 Webster Street, Stamford, CT 06902 Phone: (203) 324-2222 Fax: (203) 324-9857	Figure: 3
	Date: 11/19/12
	Drawn by: LJ
Title: Location of soil borings, soil samples above PMC	
Site: 180-184 Dr. Martin Luther King Jr. Drive Norwalk, CT	
Client: SNEW	

Drawing Source: Property Survey by Ryan and Faddis
Land Surveyors July 26, 2009

180-184 DR. MARTIN LUTHER KING JR. DRIVE, NORWALK, CT

Notes:	NA = Not Analysed	mg/l = milligram/liter	GA = Ground Water Classification
	ND = Not Detected	DEC = Direct Exposure Criteria	GB = Ground Water Classification
	ug/kg = microgram/kilogram	NE = Not Established	
	mg/kg = milligram/kilogram	Bold results highlighting in bold exceed an applicable soil criteria	

SOUTH NORWALK ELECTRIC WATER (SEW) - SOUTH PARCEL SUBSTATION

TABLE 2: SOIL ANALYTICAL RESULTS

180-184 DR. MARTIN LUTHER KING JR. DRIVE, NORWALK, CT

Sample Name	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-10	B-11	B-12	B-13	B-14	B-15	B-16
Date	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009
Depth (feet BG)	4.0 - 4.6	5.0 - 5.6	7.0 - 8.0	7.5 - 8.0	8.4 - 8.8	9.0 - 9.8	10.0 - 10.8	10.8 - 11.8	11.8 - 12.8	12.8 - 13.8	13.8 - 14.8	14.8 - 15.8	15.8 - 16.8	16.8 - 17.8	17.8 - 18.8	18.8 - 19.8
CT DEP Guidance Criteria																
Total RCRA 8 Metals (mg/kg)	5.3	6.9	8.1	6.1	6.9	13	12	3.9	16	4.8	2.2	3.1	6.8	3.9	2.7	5.4
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	460	260	150	230	260	360	500	58	630	27	68	190	190	550	28	7.7
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SELP RCRA 8 Metals (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	0.035	0.027	ND	ND	ND	ND	ND	ND	0.067	ND	ND	ND	0.032	ND	0.023	ND
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
RES DEC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
OA Pollutant Mobility	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
GS Potentiation	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MOBILITY	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L

Sample Name	HYG-1	HYG-2	HYG-3	HYG-4	HYG-5	HYG-6	HYG-7	HYG-8	HYG-9	HYG-10	HYG-11	HYG-12	HYG-13	HYG-14	HYG-15	HYG-16
Date	02/22/2012	02/22/2012	02/22/2012	02/22/2012	02/22/2012	02/22/2012	02/22/2012	02/22/2012	02/22/2012	02/22/2012	02/22/2012	02/22/2012	02/22/2012	02/22/2012	02/22/2012	02/22/2012
Depth (feet BG)	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0	11.6 - 12.0
Total RCRA 8 Metals (mg/kg)																
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SELP RCRA 8 Metals (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CT ETPH (mg/kg)	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400
MOBILITY	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RES DEC	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
OA Pollutant Mobility	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
GS Potentiation	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MOBILITY	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L

RES = Residential
DEC = Direct Exposure Criteria
NE = Not Established
Samples collected 8/31/2009

GA = Ground Water Classification
GS = Ground Water Classification
Bold results highlighted in bold excess an applicable soil criteria
* Heavy Metal Criteria Given

RES = Not Analyzed
ND = Not Detected
mg/kg = milligram/kilogram
mg/L = milligram/liter

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